Approval of CELtek Central Management System

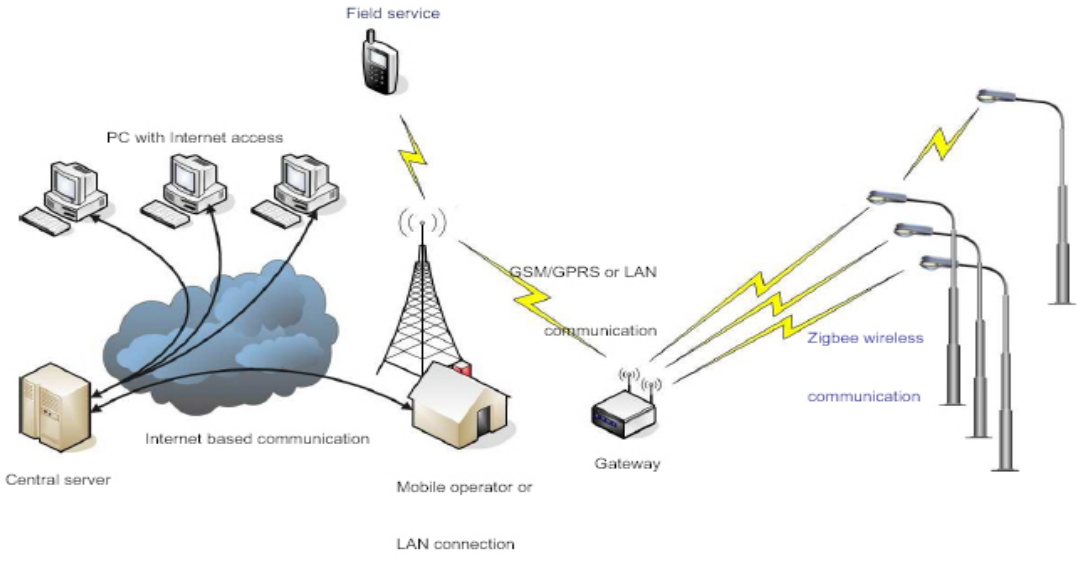
Meeting Name	Supplier Volume Allocation Group
Meeting Date	2 April 2013
Purpose of paper	For Decision
Summary	Charles Endirect, in partnership with Datek, have produced the CELtek server-based Central Management System (CMS) for remote Street Lighting control. They submitted a formal application for approval of the system in January. We have received the self-test report and completed our witness testing. This paper reports that the system has passed the testing process, and invites the SVG to approve the CELtek CMS for use in Settlement. The Unmetered Supplies User Group (UMSUG) is currently considering the application ex-committee; we do not anticipate any UMSUG objections but will update the SVG verbally at its meeting.

1. What is the CELtek CMS?

1.1 The CELtek CMS is an advanced service for the remote control of street lights.

1.2 The system uses a Gateway that controls a number of Lighting Control Units (LCUs) and the server is via Global System for Mobile (GSM) / General Packet Radio Service (GPRS) or Local Area Network (LAN).

1.3 Zigbee wireless communication is used between the LCUs, with a mesh functionality which offers full redundancy for Street Lighting columns. Each column fitted with LCU can act as a 'repeater' for other columns, securing communication over great distances. Failure of a single column will not disturb the overall functionality since columns can communicate via several other column routes, as shown in the diagram below:



© ELEXON 2013

1.4 The system servers will be hosted by Datek on behalf of any customer that purchases the CMS. Additionally, the system will be implemented with a two-way electronic interface with the customer's inventory database (e.g. Mayrise, Confirm or other system).

1.5 The LCU and Gateway have already been provided with the following Charge Codes:

Nominal Watts	Unit Description 1	Unit Description 2	Company	Manufacturer's Designation	New Charge Code
2	CMS Equipment	Light Control Unit	Charles Endirect Ltd	Datek Wireless Light Control Unit (Light Control Unit)	817 0002 004 100
10	CMS Equipment	Gateway	Charles Endirect Ltd	Datek Wireless Light Control Unit (Gateway)	81 7001 0001 100

2. Test Report and Witness Testing

2.1 Charles Endirect have provided a test report (see Attachment A), detailing the self-testing that they have undertaken against the ELEXON Equivalent Meter (EM) Testing Specification.

2.2 We undertook witness testing of the CELtek CMS (v2.35.23) on 21 February 2013 at ELEXON's offices. The test scripts used were based on the Test Specification and the requirements set out in BSCP520 'Unmetered Supplies Registered in SMRS'. The system passed the witness testing process and a few follow-up data requests have been completed. These included provision of the systems user manual (available on request).

2.3 You can find the completed test report in Attachment B. The Event Log produced from the systems has also been successfully downloaded from the Datek File Transfer Protocol (FTP) server, and was processed by Power Data Associates who confirmed that it was in the correct format.

3. Testing and Approval Scope

3.1 The testing scope included the ability to switch and dim individual lamps using the CMS, and to accurately report the events to the Meter Administrator (MA) in the Event Log. The CELtek system can potentially, like other approved CMS systems, group-switch lamps on or off using a single controller (e.g. in a feeder pillar). In such a scenario, the customer would have to declare a separate inventory for group switch lamps on a separate sub-meter Id and declare the appropriate Switch Regime (200 Series).

3.2 The scope of the approval for the CELtek system is therefore to the extent that the system can be used to control individual lamps via a LCU. The approval does not preclude use of the system to undertake group switching, but where such switching occurs the customer must use the normal approach to inventory declaration for timeswitches.

© ELEXON 2013

4. ELEXON's and UMSUG's Views

4.1 The CMS passed testing and the approach to server hosting and management appears to be robust. The CMS customer interface is clear and easily understood. The system could potentially be used as stand-alone, but integration with customer inventory databases will most likely be used in practice.

4.2 ELEXON recommends that, since the system is robust and has passed the testing requirements, the SVG should approve the CELtek CMS for use in Settlement. The UMSUG is currently considering the application ex-committee; we do not anticipate any UMSUG objections but will update the SVG verbally at its meeting.

5. Recommendations

5.1 ELEXON invites the SVG to:

a) **NOTE** the findings in the CELTEK test report;

b) **NOTE** the successful witness testing undertaken by ELEXON; and

c) **APPROVE** the CELtek CMS (v2.35.23) for use in Settlement.

Appendices
None

Attachments
Attachment A – CELtek report
Attachment B – ELEXON test report

For more information, please contact:
Kevin Spencer, Market Analyst, BSC Operations
Kevin.Spencer@elexon.co.uk / 020 7380 4115

© ELEXON 2013